

## LOGICAL FUZZY UNION AND INTERSECTION OPERATION CALCULATION CIRCUIT

### ABSTRACT OF THE DISCLOSURE

The calculation circuit comprises a subtracter having a first and a second input receiving a first and, respectively, a second input datum; a first output supplying a first output datum equal to the difference between the first and the second input datum; and a second output supplying a sign flag indicating the sign of the first output datum; an XOR logic gate having a first input receiving the sign flag, a second input receiving a first logic selection signal assuming a first level for the selection of the logical fuzzy union operation and a second level for the selection of the logical fuzzy intersection operation, and an output supplying a second logic selection signal; and a multiplexer having a first and a second datum input receiving the first and, respectively, the second input datum; a selection input receiving the second selection signal; and an output supplying a second output datum constituted by the first or the second input datum (A, B) as a function of the level assumed by the second selection signal.

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